

Amendments to the Claims:

Without prejudice, this listing of the claims replaces all prior versions and listings of the claims in the present application:

Listing of Claims:

1.-9. (Canceled)

10. (Currently Amended) A method for transmitting data between a base station and mobile stations via radio channels, comprising the steps of:

spreading data of different mobile stations with different codes; and
performing, in a modulator, a pre-equalization of signals to be transmitted,
the pre-equalization taking into account all of the different codes and transmission
properties of the radio channels, including radio channel interference
corresponding to at least one of intersymbol interference and multiple access
interference.

11. (Previously Presented) The method according to claim 10, further comprising
the step of: transmitting the data from the base station to the mobile
stations.

12. (Previously Presented) The method according to claim 10, further comprising
the step of: transmitting the data from the mobile stations to the base
station.

13. (Previously Presented) The method according to claim 10, further comprising the step
of: ascertaining, via the base station, the transmission properties of the radio
channels from data transmissions from the mobile stations to the base station.

14. (Currently Amended) An apparatus for transmitting data via at least one radio
channel, the apparatus being used in a system that couples a base station and mobile
stations via radio channels, the data of different mobile stations being spread with different
codes, comprising:

a modulator;

a code generator coupled to the modulator, the code generator providing all of the different codes; and

a channel estimator coupled to the modulator, the channel estimator providing transmission properties of all of the radio channels,

wherein the modulator performs a pre-equalization of signals to be transmitted, the pre-equalization being based on information received from the code generator and the channel estimator, and the pre-equalization taking into account radio channel interference corresponding to at least one of intersymbol interference and multiple access interference.

15. (Previously Presented) The apparatus according to claim 14, wherein the data is transmitted from the base station to the mobile stations.

16. (Previously Presented) The apparatus according to claim 14, wherein the data is transmitted from the mobile stations to the base station.

17. (Currently Amended) A system for transmitting data via at least one radio channel, comprising:

a base station; and

mobile stations coupled with the base station via radio channels, the data of different mobile stations being spread with different codes, wherein one of (A) the base station and (B) each of the mobile stations includes:

a modulator,

a code generator coupled to the modulator, the code generator providing all of the different codes, and

a channel estimator coupled to the modulator, the channel estimator providing transmission properties of all of the radio channels, the modulator performing a pre-equalization of signals to be transmitted, the pre-equalization being based on information received from the code generator and the channel estimator, and the pre-equalization taking into account radio channel interference corresponding to at least one of intersymbol interference and multiple access interference.

18. (Previously Presented) The system according to claim 17, wherein the base station ascertains the transmission properties of the radio channels from data transmissions from the mobile stations to the base station